

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A diaphragm valve comprising:

a body having an upper opening;

a first flow passage and a second flow passage formed in the body to open into the upper opening;

a diaphragm valve element covering the upper opening to form an airtight space through which the first and second flow passages are allowed to communicate with each other;

a valve seat formed in the body;

an urging member urging the diaphragm valve element against the valve seat into a valve-closed state; and

an actuator adapted to bring the diaphragm valve element out of contact with the valve seat into a valve-opened state;

wherein the diaphragm valve element is made of resin, and

_____the diaphragm valve element comprises:

a main body which is to be brought into/out of contact with the valve seat;
seat, the main body including a lower plane surface for being in contact with the valve seat, a side surface vertically extending from an outer periphery of the lower plane surface, a hole opening on an upper surface in which the actuator is fitted, and a slope portion connecting an upper end of the side surface and an outer periphery of the upper surface;

a diaphragm part formed extending in a curve, radially from the slope portion of the main body, and including a root connected to the main body, a radially outer portion of the root being positioned inside the diameter of the valve seat so that liquid

pressure acts on a region outside the root connected to an upper surface of the main body for reducing an urging force of the urging member, the diaphragm valve being capable of reducing an occurrence of water hammer; and

a fixed part formed at an outer peripheral edge of the diaphragm part and held at a position higher than the root during the valve-closed state.

2. (Previously Presented) The diaphragm valve of claim 1, wherein the diaphragm valve element in which the diaphragm part having a thin wall and the fixed part having a thick wall are formed so that respective upper surfaces are flush with each other, and the fixed part is held between a lower fixing face and an upper fixing face which extends to the diaphragm part.

3. (Previously Presented) The diaphragm valve of claim 2, further comprising a guide face having a slope contiguous from the upper fixing face above the diaphragm part so that the diaphragm part comes into contact with the guide face when the diaphragm valve element is separated from the valve seat.

4. (Previously Presented) The diaphragm valve of claim 1, wherein a fluid-pressure-receiving area of the main body is as large as or larger than a fluid-pressure-applied area of the diaphragm part.

5. (Previously Presented) The diaphragm valve of claim 2, wherein a fluid-pressure-receiving area of the main body is as large as or larger than a fluid-pressure-applied area of the diaphragm part.

6. (Previously Presented) The diaphragm valve of claim 3, wherein a fluid-pressure-receiving area of the main body is as large as or larger than a fluid-pressure-applied area of the diaphragm part.

7. (Previously Presented) The diaphragm valve of claim 1 wherein the root substantially vertically extends upward from the main body.

8. (Previously Presented) The diaphragm valve of claim 1 wherein an upper surface of the main body inclines downward in a direction away from the urging member.
9. (Previously Presented) The diaphragm valve of claim 1 further comprising a circular groove formed around the valve seat.
10. (Previously Presented) The diaphragm valve of claim 9 wherein the first flow passage is in communication with the circular groove formed around the valve seat.
11. (Previously Presented) The diaphragm valve of claim 1, wherein the fixed part formed at an outer peripheral edge of the diaphragm part is held at the position higher than the root during the valve-closed state and the valve-opened state.